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To: Mr. Charlie Henry

From: Mr. Steven Pedigo

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Dear Mr. Henry,

I was sent your name by Nancy Jones of the EPA, along with a report that the natural microbes in the Gulf of Mexico were eating the oil sunken with Corexit. I would like to share with you how past experience and scientific testing has fully proven that microbes do not have the ability to digest oil combined with hydrotreated distillates, and 2 butoxy ethanol (2BTE).

As you, of course, know, the reason it is necessary to clean up an oil spill or hazardous material, is to reduce the toxicity to the environment so that living organisms can survive the disaster and continue to live.

In the early nineties, a protocol to develop a test protocol was created in order to be able to certify a bioremediation product which could effectively remediate oil to CO₂ and water. This was developed through EPA/NETAC. NETAC was a contracted group out of the University of Pittsburgh hired to help facilitate the protocol development. The test oil was artificially weathered oil from Alaska and was designated Alaska North Slope crude oil (ANS).

The test protocol developed was performed in triplicate with 2 types of controls that had an incredible amount of GC/MS data established on target analyses such as PAH's, crysene and others. Last year, the test cost us \$20,000.00 to have performed at LSU University for the EPA NCP listing. The results came out very close to the results from the first two NCP tests and within reason of a third set of test results. OSE II has been performed on the NCP test for 21 days, twice, and the final protocol 2 times, as well. OSE II has been tested on the NCP required test more than any other product in the world.

The reason I mention the NCP testing protocol is because there was another product, Inipol EAP 22 produced by Exxon, which was used to develop the NCP

protocol, as well. Inipol contains hydrotreated distillates and 2 butoxy ethanol, some of the same constituents that are in Corexit. In fact Inipol's toxicity tests were similar to Corexit 9527A and 9500, as well. In fact, they all contain almost identical ingredients. I still have the 1990's version MSDS from each of these products.

After 1 year of Exxon trying to tweak the engineering for Inipol so it could be adequately productive to make sense for use, I was in the Hilton Pittsburgh with Dick Lasard. I asked Dick when Exxon was going to give up with Inipol since it will never proven to bioremediate anything. He asked "Why do you say this?" I replied, "You are killing off the microbes as fast as you can grow them, if you can grow them at all." I stated, "You have hydrotreated distillates and 2 butoxy ethanol; these will kill a human, much less a single-celled organism." Shortly thereafter, Exxon abandoned Inipol. This may have been due to what I stated, which was just common sense, or maybe because they could not get Inipol to work, no matter what.

Now to the Corexits: As mentioned above, they have some of the same chemical ingredients as Inipol, except they do not contain fertilizer components, which Inipol had. Corexit 9527A is more toxic since it contains more 2 butoxy ethanol; however, all three act alike in the environment. The main chemical matrices in the Corexits are contained in Inipol, and they act as biocides, killing microbes and preventing them from digesting oil they have been applied and attached to.

The results asserted in your report, specifically where you state the microbes could eat up the oil which has been sunk into the water column and seabed sediment by Corexit, seems unlikely and is refuted by testing from the past, as you can now understand. In fact, the statements you made have not been able to replicated by any independent scientist. They cannot keep the microbes alive to even colonize when in close proximity of the oil and Corexit, much less digest a toxic substance. Until some type of mechanism is utilized to reduce the molecular structure of the hydrocarbon and Corexit, either of the two separately are hard enough to remediate; however when you combine the BP oil *and* Corexit, it becomes extremely toxic as Corexit toxicity tests verified on the EPA web site.

In fact, there is a video which can be easily pulled up on YouTube where a scientist has an aquarium (approximately 5 gallons) with several fish swimming around in it. 1 drop of Corexit 9527A was applied and, in less than a minute, the fish turned belly up and died. This extremely toxic substance is not readily amenable to bioremediation by microbes unless, as mentioned above, the molecular structure is modified and a digestive pathway developed.

There are now more and more reports of skin lesions and even 5 deaths of humans at Grand Isle, LA which are directly attributed to exposure to Corexit. This puts the use of Corexit in an entirely different category.

The matrices of Corexit, as you can understand, have been tested regarding its ability to remediate oil through the growth of microbes, and not only was there no remediation which occurred as a result, but the microbes died. This is part of the

reason the oil that is coming out of the seabed is piling up on the seabed floor, as reported by University of Southern Florida scientists.

An additional problem regarding your statement of Corexit helping the microbes to remediate the oil is the physical and observable evidence which refutes your assertion. I have personally tested OSE II numerous times now on the BP oil and Corexit combination. It requires 7 to 10 days to remediate to water and CO₂ completely. This means that, at day 5, approximately half of the oil remains, and that which remains is in a broken down state. The oil rig is 70 to 75 miles from the shore, and it was observed early on in the disaster that it took over 6 weeks for the oil released from the well to arrive at the shore. If Corexit was able to help microbes remediate the oil, you would not have had all the oil coming ashore. Even in just the last 2 weeks, as of this writing, enormous amounts of oil have been seen coming ashore. So when you state that Corexit helps the microbes digest the oil, while at the same time there are enormous amounts of oil coming ashore, the observable evidence seems to refute your statement.

Approximately two weeks ago, a couple of independent scientists observed phytoplankton and bottom-dwelling species which had mutagenic and genotoxic effects from exposure to the combination of the oil and Corexit. These observations mean that the Clean Water Act has been violated with the use of Corexit, since no product with mutagenic, genotoxic, or carcinogenic effects can legally be applied to US waters. The fact that these effects are occurring seems to suggest that microbes have no ability to remediate these chemicals, as well.

The Gulf is becoming saturated with Corexit dispersants. The fact that diving suits are dissolving from these solvents in the water, and the water tests from independent scientists show high levels of hydrocarbons and components of Corexit strongly suggest the problem is increasing and accumulating. There are photos of Corexit applications and staging areas of empty Corexit drums and totes with shipping labels on them that prove they were shipped to the site long after the last permit was given by the Coast Guard for their use. Totes that have just been emptied have been photographed, as well. The evidence of continued Corexit use is being substantiated by Gulf Coast residents.

What can be observed on the Gulf seabed and water follows: Corexit is being applied to the oil, which partitions the oil into small particles causing the oil to reside in the water column for some time. The oil then sinks to the ocean floor reconstituting itself into huge tar balls, or piles of oil and Corexit on the ocean floor, which exposes the seabed to a more toxic substance than the original oil itself. This toxic oil mat stretching for 50 to 70 miles from the rig, and that is 5 to 10 inches in depth, just keeps piling up since the Corexit is actually inhibiting remediation of the oil, and the water becomes increasingly more toxic. This, then, transfers to the seafood which is why all the independent tests have proven the seafood was never really safe to ingest after June.

When the federal government has a person, such as yourself, make scientific pronouncements, their results should be able to be replicated by other independent scientists, and the observable evidence should not refute the tests, and or statements. There is no substantiated end point to Corexit, except sinking oil. A common sense review of the ingredients will allow a person with basic chemical knowledge to understand this.

I have a product, called OSE II, which has very specific, substantiated end points: it causes oil to float, limiting a spill's impact to secondary areas, and, within a matter of hours it detoxifies the dispersant and the oil and, then, within 2 to 4 weeks, it will turn the oil into water and CO₂. OSE II's toxicity tests have an LC 50 of greater than 1,900 and other tests performed by EPA show LC 50 or LD 50 of over 5,000, and some as high as greater than 9,600. You can wash your hands and even ingest small amounts of OSE II without any adverse affects. There could not be a more opposite product to Corexit than OSE II. It solves all the problems related to toxicity, oxygen depletion, and having to deal with hazardous substances. OSE II is the only way to clean up the oil on the ocean floor, and the marshes, and is the best means to completely and thoroughly clean the sandy beaches.

Its hard to tell some one a product like corexit is safe when the responder is required to wear a respirator, and a chemical suite. If you have to wear a respirator and a chemical suite it should not be put in US navigable waters!

For more information about OSE II, please go to www.osei.us.

Sincerely,

Steven Pedigo